CONTENTS OF VOLUME 81

JANUARY, 1959. NUMBER 1

Therapeutic Radiology: President's Address. *Ralph T. Ogden, M.D.* ... 1
A Precision Cobalt 60 Unit for Fixed Field and Rotation Therapy. *H. E. Johns and J. R. Cunningham.* 4
Physical and Clinical Advantages and Limitations of Cobalt 60 Teletherapy. Part I. Physical Factors. *Carl B. Braestrup* ... 13
Physical and Clinical Advantages and Limitations of Cobalt 60 Teletherapy. Part II. Clinical Considerations. *Ruth J. Guttmann, M.D.* ... 19
A Method for Construction of Isodose Charts from Minimum Experimental Data. *E. Ann Evans, M.I.R.* ... 24
Some Clinically Useful Data for Fixed Field and Rotational Telecobalt Therapy. *Daniele Salvioni, M.D., and R. J. Schulz, M.S.* ... 30
The Advantages and Limitations of Cobalt 60 Hectocurie Teletherapy. *Norman Simon, M.D., and Sidney M. Silverstone, M.D.* ... 38
Simple Physical Concepts in I^{131} Thyroid Uptake and Differential Studies. *Marion F. Magalotti, M.D., and Irvin F. Hummon, M.D.* ... 43
The Effect of Disease and Drugs on the Twenty-four Hour I^{131} Thyroid Uptake. *Marion F. Magalotti, M.D., Irvin F. Hummon, M.D., and Ernst Hierschbiel, M.D.* ... 47
Importance of the Determination of the Weight of the Thyroid Gland and Clinical Biologic Factors in the Treatment of Hyperthyroidism with I^{131}. *W. Clode, V. Sobral, A. M. Baptista, M. A. Perez-Fernandez, and M. Lusa Martins; L. Botelho, M. Freire da Cruz, and F. Magalhães Colaço.* 65
Thyroid Function Assay with Radioiodine: The Correlation of Thyroidal Clearance Factor and Percentage Uptake. *I. Meschan, M.D., Joseph E. Whitley, M.D., Richard Rogers, M.D., and Paul S. O'Brien, M.D.* ... 74
The Measurement of Saliva I^{131} in Percentage of Given Dose per Liter As an Index of Thyroid Function. *Lillian E. Jacobson, M.A., and Wade N. Miller, M.D.* ... 80
The Use of Radioactive Isotopes in the Study of Colonic Absorption. *J. K. Isley, M.D., A. P. Sanders, M.D., K. W. Sharpe, M.D., R. J. Reeves, M.D., and G. J. Baylin, M.D.* ... 89
Treatment of Pterygium by Surgery Followed by Beta Radiation: An Analysis of 256 Cases. *Walter Lentino, M.D., Milton M. Zaret, M.D., Bertrand Rossignol, M.D., and Sidney Rubenfeld, M.D.* 93
Radioactive Chromium 51 Gamma Ray Sources. *William G. Myers, Ph.D., M.D.* ... 99
Study of the Hemorrhagic Diathesis in a Patient following Intraperitoneal Instillation of Radiochloride 38. *Theobald Reich, M.D., and W. Ross McCarty, M.D.* ... 107
Time-Dose Relationship in Stage I Carcinoma of the Uterine Cervix. *James F. Nolan, M.D., John W. Emmett, M.D., and John H. Anson, M.S.* ... 111
The Use of Radical Surgery in the Treatment of Cancer of the Cervix. *Gray H. Twombly, M.D.* ... 115
Results of Radiation Treatment of Carcinoma of the Cervix in a Small Hospital. *O. S. Peterson, Jr., M.D., and J. C. Foley, M.D.* ... 120
Bilateral Ureteral Obstruction Complicating the Treatment of Carcinoma of the Cervix. *E. J. Schewe, Jr., M.D., and José M. Sala, M.D.* ... 125
Transverse Laminagraphy: The Third Dimension in Body Section Roentgenography: Applications in Radiation Therapy. *Bernard Roswit, M.D., Sol M. Unger, M.D., Joseph Stein, M.D., Stanley J. Malsky, M.A., M.Sc., and Cyprian B. Reid, B.Sc.* ... 130
Officers ... 140
Editorials
The Forty-first Annual Meeting of the American Radium Society. *Milford D. Schulz, M.D.* ... 141
Adoniram Judson Quimby, 1875–1958. *Ramsay Spillman, M.D.* ... 143
National Committee on Radiation Protection and Measurements (NCRP) ... 145
Society Proceedings and News Items ... 147
Book Reviews ... 156
Books Received ... 160
Abstracts of Radiological Literature ... 161

FEBRUARY, 1959. NUMBER 2

Positive Roentgenograms Plus Positive Sputum Smears Do Not Always Equal Pulmonary Tuberculosis. *C. Allen Good, M.D., David T. Carr, M.D., and Lyle A. Weed, M.D.* ... 187

The Changing Roentgenologic Picture in Pulmonary Tuberculosis under Modern Chemotherapy. *Richard M. Friedenberg, M.D., Norman Isaacs, M.D., and Milton Elkin, M.D.* ... 196
The Ghon Focus of Tuberculous Reinfection. *L. S. Arany, M.D.* ... 207
Less Familiar Roentgen Patterns of Pulmonary Granulomas; Sarcoidosis, Histoplasmosis and Non-infectious Necrotizing Granulomatosis (Wegener's Syndrome). *Benjamin Felson, M.D.* ... 211
Roentgen Aspects of Blastomycosis. *W. L. Boswell, M.D.* ... 224
Pulmonary Histiocytosis X (Eosinophilic Granuloma); Report of a Case. *J. Pagan-Carlo, M.D., and Timothy J. Haley, M.D.* ... 231
Pulmonary Paragonimiasis; An Evaluation of Roentgen Findings in 38 Positive Sputum Patients in an Endemic Area in Thailand. *Romsai Suwanik, M.D., and Chamlong Harinsuta, M.D.* ... 236
Thromboembolism of the Lungs. *Julian Arendt, M.D., and Max Rosenberg, M.D.* ... 245
The Importance of Chest Roentgenography in the Diagnosis of Pulmonary Embolism. *George N. Stein, M.D., Jen Ti Chen, M.D., Franz Goldstein, M.D., Harold L. Israel, M.D., and Arthur Finkelstein, M.D.* ... 255
Pulmonary Manifestations in Collagen Diseases. *Charles M. Nice, Jr., M.D., Ph.D., A. N. K. Menon, M.B., B.S., D.M.R., D.M.R.D., and Leo G. Rigler, M.D.* ... 264
Roentgen Diagnosis of Anomalous Pulmonary Venous Drainage of Right Lung into Inferior Vena Cava; Report of Three New Cases. *Israel Steinberg, M.D.* ... 280
Unusual Roentgen Manifestations of Primary Staphylococcal Pneumonia in Infants and Young Children. *Gunter Schultze, M.D.* ... 290
The Vanishing Lung Tumor—Pulmonary Hematoma. *John R. Williams, LT MC* ... 296
Cystic Lung Lesions from Metastatic Sarcoma. *Neil E. Crow, Captain, USAF (MC), and Byron G. Brogdon, Captain, USAF (MC)* ... 303
Cricothyroid Bronchography with a Polyethylene Catheter; Description of a New Technique. *James K. V. Willson, M.D.* ... 305
The Average Density of Healthy Lung. *John F. Fowler, Ph.D., M.Sc., and Albert E. Young* ... 312
Cervicothoracic Tumors: A Technical Aid to Their Roentgenologic Localization. *F. F. Rundle, M.D., F.A.C.S., R. M. de Lambert, D.D.R., M.C.R.A., and R. G. Epps, M.R.C.P.* ... 316
Laryngocele: A Case Report. *Henry C. Forrester, M.D., Rufus C. Morrow, M.D., and A. Bradley Soule, Jr., M.D.* ... 322
Television Contrast Expansions of Single Roentgenograms. *J. Gershon-Cohen, M.D., and J. F. Fisher.* 325
An Adaptor for Developing 70 MM. Roll Film in the Eastman X-omat. *Paul C. Hodges, M.D.* ... 328
Plastic Roentgen-Ray Phantoms. *J. F. Roderick, R.T. (A.R.X.T.)* ... 331
Officers ... 336
Editorials
Radiation and the Community: A New Role for the Radiologist. *George Tievsky, M.D.* ... 337
Brigadier D. B. McGrigor, *Kenneth D. A. Allen, M.D.* ... 341
National Committee on Radiation Protection and Measurements (NCRP); Announcement of New Publications and of Work in Progress ... 344
Society Proceedings and News Items ... 345
Book Reviews ... 348
Books Received ... 351
Abstracts of Radiological Literature ... 354

March, 1959. Number 3

Comparison of Medium Voltage and Supervoltage Roentgen Therapy in the Treatment of Oropharynx Cancers. *Gilbert H. Fletcher, M.D., William S. MacComb, M.D., Paul M. Chau, M.D., and Wesley G. Farnsley, M.D.* ... 375
Supervoltage (2 Mev.) Rotation Irradiation of Carcinoma of the Head and Neck. *Milton Friedman, M.D., Martha E. Southard, M.D., and William Ellett, M.Sc.* ... 402
Carcinoma of the Base of the Tongue. *Victor A. Marcial, M.D.* ... 420
Hodgkin's Disease of the Oral Cavity. *George Meyer, M.D., Bernard Roswit, M.D., and Sol M. Unger, M.D.* ... 430
The Effect of Mitotic Suppression and Recovery after Irradiation on Time-Dose Relationships and the Application of This Effect to Clinical Radiation Therapy. *Paul W. Scanlon, M.D.* ... 433
Radiation Therapy in Cancer of the Larynx; A Review. *Simeon T. Cantril, M.D.* ... 456
Glomus Tumors, Their Response to Irradiation. *Robert J. Reeves, M.D., and Owen W. Doyle, M.D.* ... 475
The Rapid Palliative Treatment of Breast Carcinoma; A Preliminary Report. *Donald Q. Cochran, M.D., Sumner Holtz, M.D., and William E. Powers, M.D.* ... 479

The Modification of the Radiation Response. *J. Robert Andrews, M.D., D.Sc. (Med.), and Stanley E. Sneider, M.D.* ... 485
High Pressure Oxygen and Radiation Therapy. *Cyril Sangers, M.B., B.S., F.F.A.R.C.S., D.A.* ... 498
The Liver, Radiation and Leukemia. *Marion F. Beard, M.D.* ... 504
Glass Dosimetry for Determination of Doses to a Biologic Object in a Thin Water Layer. Part II. *Tor Brustad, and Thormod Henriksen* ... 509
Depth-Dosimetry by Means of a Gel-Incorporated Chemical System. *J. F. Pestaner, and L. H. Gevantman* ... 512
Roentgenographic Visualization of Lymph Nodes and Lymphatic Channels. *Harry W. Fischer, M.D., and George R. Zimmerman, M.D.* ... 517
Officers ... 535
Editorial
Internal Deposition of Long-Lived Radioactive Substances. *Kenneth L. Krabbenhoft, M.D.* ... 536
National Committee on Radiation Protection and Measurements (NCRP) ... 538
Society Proceedings ... 540
Book Reviews ... 545
Books Received ... 546
Abstracts of Radiological Literature ... 547

April, 1959. Number 4

The Role of the Cricopharyngeal Muscle in Cases of Hypopharyngeal Diverticula; A Cineroentgenographic Study. *Gösta Dohlman and Ove Mattsson* ... 561
Variations in the Roentgen Appearance of the "Esophageal Lip." *Theresa L. Siebert, M.D., Joseph Stein, M.D., and Maxwell H. Poppel, M.D.* ... 570
The Roentgen Appearance of the Stomach and Duodenum following the Billroth I Gastric Resection. *Soon Yong Kim, M.D., and John A. Evans, M.D.* ... 576
The Roentgen Diagnosis and Management of Prepyloric Narrowings. *Robert S. Sherman, M.D., Ying-Ming Yen, M.D., Lemuel Bowden, M.D., and Henry M. Selby, M.D.* ... 582
Splenic Indentation of the Gastric Fundus Resembling Gastric Neoplasm; Report of Two Cases. *Captain Robert B. Brown, MC USN, and Commander Robert P. Dobbie, Jr., MC USN* ... 599
Early and Late Roentgenologic Findings in Corrosive Gastritis: Report of a Case. *I. Nik Nevin, M.D., Wallace W. Turner, M.D., and Horace T. Gardner, M.D.* ... 603
The Value of Delayed Gastric Emptying Roentgen Study of the Abdomen in the Detection of Ulcer, Carcinoma and Other Organic Disease of the Upper Alimentary Tract. *Jay W. MacMoran, M.D., Robert B. Funch, M.D., and Barton R. Young, M.D.* ... 609
Lymphangioma of the Duodenum. *James G. Davis, M.D., Hyman Peck, M.D., and Byron L. Gray, M.D.* ... 613
Focal Constricting Inflammatory Lesions of the Small Intestine; Report of Three Cases. *Lester W. Paul, M.D., and Margaret C. Winston, M.D.* ... 616
The Small Intestine in Whipple's Disease. *William Martel, M.D., and Fred Jenner Hodges, M.D.* ... 623
A Roentgen Sign of Gangrenous Appendicitis. *Mary S. Fisher, M.D.* ... 637
Roentgen Change in Disease of the Appendices Epiploicae. *David Kirsh, Ph.D., M.D., and Rudolph E. Drosd, M.D.* ... 640
Clinical and Roentgenologic Correlation of Physiology of the Colon. *M. H. Nathan, M.D.* ... 650
The Value of Multiple Barium Enema Studies. *Benjamin D. Braun, M.D.* ... 661
A New Method of Air Contrast Examination of the Colon for Routine Application. *M. H. Nathan, M.D., and A. Newman, M.D.* ... 675
Six Primary Adenocarcinomas of the Colon Occurring Simultaneously; Report of a Case. *William Molnar, M.D.* ... 678
Sigmoid Volvulus; Variations in the Roentgen Pattern. *Leo S. Figiel, M.D., and Steven J. Figiel, M.D.* 683
Large Diverticulum of the Rectum; Report of a Case. *Owen W. Doyle, M.D.* ... 694
Bowel Preparation for Roentgenologic Procedures Using a New Evacuant, Bisacodyl. *M. H. Poppel, M.D., and C. K. Bangappa, M.D.* ... 696
Officers ... 700
Editorials
Our Changing Concepts of the Roentgen Examination of the Colon. *Arch H. Hall, M.D.* ... 701
Warren W. Furey, M.D., 1898–1958. *Earl E. Barth, M.D.* ... 704
Chester A. Stayton, Sr., M.D., 1889–1958. *Raymond C. Beeler, M.D.* ... 706
Society Proceedings and News Items ... 708

Book Reviews ... 710
Books Received ... 715
Abstracts of Radiological Literature ... 716

May, 1959. Number 5

Coronary Arteriography. *J. Stauffer Lehman, M.D., Randal A. Boyer, M.D., and Fred S. Winter, M.D.* 749
A Comparison of Techniques for Visualization of the Coronary Arteries. *Jacob I. Fabrikant, M.D., William G. Anlyan, M.D., George J. Baylin, M.D., and Robert B. Trumbo, M.D.* ... 764
Calcification of the Coronary Arteries. *David H. Blankenhorn, M.D., and David Stern, M.D.* ... 772
Cinecardiometry and Cine-Electrokymography; New Angiographic Techniques for the Analysis of Cardiac Mechanics. *Frank L. Campeti, M.D., with the technical assistance of Vivian A. Palladoro, B.S.* ... 778
The Roentgenologic Features of Ebstein's Anomaly of the Tricuspid Valve. *Kurt Amplatz, M.D., Richard G. Lester, M.D., Gerold L. Schiebler, M.D., Paul Adams, Jr., M.D., and Ray C. Anderson, M.D.* ... 788
Foreign Bodies in the Heart; A Review of the Literature Since 1952 and a Case Report. *Robert B. Hiatt, M.D., Campbell W. McMillan, M.D., and Ismail Niknejad, M.D.* ... 795
Normal Pulsations in the Pulmonary Vascular Tree As Seen with Roentgenoscopic Image Amplification. *Brit B. Gay, Jr., M.D.* ... 801
Great Vessel Involvement in Lung Cancer: Angiocardiographic Report on 250 Consecutive Proved Cases. *Israel Steinberg, M.D., and Na haniel Finby, M.D.* ... 807
Roentgen Findings in Aneurysm of the Descending Thoracic Aorta. *James G. Davis, M.D., and Philip Winsor, M.D.* ... 819
Roentgen Signs of Contrast Material Dissection of Aortic Wall in Direct Aortography. *Delbert E. Boblitt, M.D., Melvin M. Figley, M.D., and Earl F. Wolfman, Jr., M.D.* ... 826
New Technique of Contrast Visualization of the Distal Aorta, Pelvic and Lower Extremity Arterial System in Obliterative Vascular Disease. *Billy P. Sammons, LT. (MC) USN, and H. Paul Mahin, CDR. (MC) USN* ... 835
Functional Ascending Phlebography of the Lower Extremity by Serial Long Film Technique; Evaluation of Anatomic and Functional Detail in 62 Extremities. *James A. DeWeese, M.D., and Stanley M. Rogoff, M.D.* ... 841
Demonstration of Liver Regeneration by Splenoportal Venography. *Abdol H. Islami, M.D., and George T. Pack, M.D.* ... 855
The Effect of Ionizing Radiations on Capillary Sprouting and Vascular Remodelling in the Regenerating Repair Blastema Observed in the Rabbit Ear Chamber. *H. A. S. van den Brenk, M.S., F.R.C.S., D.T.R.* ... 859
Officers ... 885
Editorials
Intravenous Angiocardiography: The Twentieth Year. *Israel Steinberg, M.D.* ... 886
Harry M. Weber, 1899–1958. *C. Allen Good, M.D.* ... 888
Higdon Bryant Elkins, 1907–1958. *H. Dabney Kerr, M.D.* ... 891
Society Proceedings and News Items ... 893
Book Reviews ... 900
Books Received ... 903
Abstracts of Radiological Literature ... 905

June, 1959. Number 6

The Angiographic Study of Carotid Insufficiency and Cerebral Ischemia. *Marvin M. Keirns, M.D., and John E. Whiteleather, M.D.* ... 929
A Method for Localizing the Pineal Gland for Anteroposterior Projections. *John R. McLaren, M.D.* 945
A New Method for Localizing the Calcified Pineal Gland on the Lateral Skull Roentgenogram. *Joseph K. Isley, Jr., M.D., and George J. Baylin, M.D.* ... 953
The Roentgenologic Aspects of Tympanoplasty; An Otologist's Viewpoint. *W. E. Compere, Jr., M.D.* .. 956
Osteoblastic Metastases to the Floor of the Skull Simulating Meningioma En Plaque. *Robert Shapiro, M.D., and Arnold H. Janzen, M.D.* ... 964
Restoration of the Sella Turcica after Treatment of Pituitary Adenomas. *Sol. M. Unger, M.D., and Bernard Roswit, M.D.* ... 967
Pantopaque Ventriculography in the Localization of Surgical Lesions of the Posterior Fossa. *Bruce L. Ralston, M.D., Sidney W. Gross, M.D., and Charles W. Newman, M.D.* ... 972

Cisternal Pneumoencephalography. *Sean Mullan, M.D., and Anselmo Pineda, M.D.* 984
Dynamic Encephalography. *Eduardo C. Palma, M.D.* 992
Roentgenologic Principles of a New Stereotaxic Apparatus. *David Fairman, M.D.* 1001
The Normal Cervical Diskogram; with Clinical Observations. *George W. Smith, M.D.* 1006
Block of the Spinal Canal Caused by Herniated Disk. *Berta M. Rubinstein, M.D., Wilhelm Z. Stern, M.D., and Harold G. Jacobson, M.D.* 1011
Extensive Lumbar Meningocele Associated with Neurofibromatosis. *Billy P. Sammons, LT. (MC), USN, and Donald F. Thomas, LT. (MC), USN* 1021
X-Irradiation Exencephaly. *Roberts Rugh, Ph.D., and Erica Grupp* 1026
Officers 1053
Editorial
The Forty-first Annual Meeting of the American Radium Society. *Harry Hauser, M.D.* 1054
Society Proceedings and News Items 1057
Abstracts of Radiological Literature 1058
Subject Index to Volume 81 1087
Author Index to Volume 81 1103

RALPH T. OGDEN, M.D.